UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,087	07/11/2006	Sebastien Deguy	1064945	5857
OSLER, HOSKIN & HARCOURT LLP (OTHER) 1000 DE LA GAUCHETIERE STREET WEST			EXAMINER	
			MARTELLO, EDWARD	
SUITE 2100 MONTREAL, QC H3B-4W5		ART UNIT	PAPER NUMBER	
CANADA	CANADA		2628	
			NOTIFICATION DATE	DELIVERY MODE
			09/05/2008	ELECTRONIC

# Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipmtl@OSLER.COM

	Application No.	Applicant(s)				
Office Action Comments	10/597,087	DEGUY, SEBASTIEN				
Office Action Summary	Examiner	Art Unit				
	Edward Martello	2628				
The MAILING DATE of this communication app	pears on the cover sheet with the c	orrespondence address				
Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPL' WHICHEVER IS LONGER, FROM THE MAILING D.  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from , cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 11 Ju	dv 2006					
· <u> </u>		esecution as to the merits is				
,	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
	expante Quayre, 1000 c.z. 11, 10	33 3.3. 210.				
Disposition of Claims						
4) Claim(s) <u>1-64</u> is/are pending in the application						
4a) Of the above claim(s) <u>1-32</u> is/are withdraw	4a) Of the above claim(s) <u>1-32</u> is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.	5) Claim(s) is/are allowed.					
6)⊠ Claim(s) <u>32-64</u> is/are rejected.	)⊠ Claim(s) <u>32-64</u> is/are rejected.					
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/o	r election requirement.					
Application Papers						
9)⊠ The specification is objected to by the Examine	er.					
10)⊠ The drawing(s) filed on <u>11 July 2006</u> is/are: a)□ accepted or b)⊠ objected to by the Examiner.						
Applicant may not request that any objection to the	_ · /_ ·					
Replacement drawing sheet(s) including the correct	• • •	, ,				
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign	priority under 35 H.S.C. & 110/a	\ (d\ or (f\				
a) All b) Some * c) None of:	priority under 33 0.3.C. § 119(a)	<i>j</i> -(u) or (i).				
1. ☐ Certified copies of the priority document	s have been received					
2. Certified copies of the priority document		on No				
3. Copies of the certified copies of the prior						
application from the International Burea	•					
* See the attached detailed Office action for a list		ed.				
	,					
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date						
3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date 7/12/2006.  5) Notice of Informal Patent Application 6) Other:						
. apor 110/0/1910 Dato 1/12/2000.	5/ <u>Guioi.</u>					

Application/Control Number: 10/597,087 Page 2

Art Unit: 2628

#### **DETAILED ACTION**

## **Drawings**

- 1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) which are not described in the specification: 11, 40, 42 and 43. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
- 2. The drawings are objected to because figure 38 is much too dark to illustrate the example described in lines 10 through 12 of the text on page 22 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

Application/Control Number: 10/597,087 Page 3

Art Unit: 2628

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

## Specification

3. The disclosure is objected to because of the following informalities: In lines 6 through 9 of the text on page 17 of the specification, the reference number 23 is used to describe a moveable screen target and also the display itself.

Appropriate correction is required.

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 2628

Page 4

- 4. Claims 1-32 (canceled) are withdrawn from consideration.
- 5. Claims 33, 45-48 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vu (U.S. Patent 6,396,522, hereafter '522) and in view of Baumberg (U.S. Patent Appllication Publication 2003/0160785 A1, hereafter '785).
- Regarding claim 33, Vu teaches a procedural map (hierarchical tree) modification tool 6. (method) for use with a tree driven procedural map (hierarchical tree) comprising a plurality of levels each having at least one node associated to at least one parameter ('522; abstract), comprising: a node selection tool (method) allowing the selection of at least one node of one level among the plurality of nodes of a map to be modified ('522; col. 2, ln. 47-51); but does not explicitly teach a parameter setting tool (method) allowing the modification of at least one parameter of the selected node; and continues to teach a processing unit (computer), for the processing of said parameters to generate a map; operating instructions, for the operation of said tool (method) and namely of the processing unit ('522; col. 4, ln. 23-48). Baumberg, working in the same field of endeavor, however, teaches a parameter setting tool (method) allowing the modification of at least one parameter of the selected node ('785; fig. 4a; step S4-6) for the benefit of allowing the user modify node parameters from an easy to use graphical user interface. It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Vu and Baumberg to provide a tree node navigation and selection method and a method to allow modification of parameters associated with the selected node for the benefit of decoupling the user from the intricacies of a shader/texture engine architecture with an easy to use graphical user interface.

Art Unit: 2628

Page 5

- 7. Regarding claim 45, Vu teaches a procedural map (hierarchical tree) generation tool (method), for the generation of tree driven procedural maps (hierarchical trees) comprising a plurality of levels each having at least one node associated to at least one parameter ('522; col. 4, ln. 33-54), comprising: a map parameter input unit (input devices; '522; fig. 1; col. 4, ln. 15-22, col. 4, ln. 33-48), for the input of the procedural map (hierarchical tree) parameters; a map processing unit ('522; col. 4, ln. 49-53), for the processing of the parameters; operating instructions, for the operation of said tool (method) and namely of the processing unit ('522; col. 4, ln. 23-48); a map modification tool (method), comprising: a node selection tool (method) allowing the selection of at least one node of one level among the plurality of nodes of a map to be modified ('522; col. 2, ln. 47-51); but does not explicitly teach a parameter modification tool (method) allowing the modification of at least one parameter of the selected node. Baumberg, working in the same field of endeavor, however, teaches a parameter modification tool (method) allowing the modification of at least one parameter of the selected node ('785; fig. 4a; step S4-6) for the benefit of allowing the user modify node parameters from an easy to use graphical user interface. It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Vu and Baumberg to provide a tree node navigation and selection method and a method to allow modification of parameters associated with the selected node for the benefit of decoupling the user from the intricacies of a shader/texture engine architecture with an easy to use graphical user interface.
- 8. In regards to claim 46, Vu further teaches an output allowing the presentation of said map on a display ('522; fig. 1; col. 4, ln. 50-53).

Art Unit: 2628

- 9. Regarding claim 47, Vu teaches a process for modifying a procedural map (hierarchical tree) for use with a tree driven procedural map (hierarchical tree) comprising a plurality of levels each having at least one node associated to at least one parameter ('522; abstract), comprising the steps of: providing a node selection tool (method) ('522; col. 2, ln. 47-51) allowing the selection of at least one node of one level among the plurality of nodes of a map to be modified ('522; col. 2, ln. 47-51); select a given node according to a given input ('522; col. 2, ln. 47-51); but does not teach providing a parameter modification tool (method) allowing the modification of at least one parameter of the selected node; modify said parameter of said node based on a given input; and continues to teach the process to calculate a modified map based on the modified parameters ('522; col. 4, ln. 23-48). Baumberg, working in the same field of endeavor, however, teaches providing a parameter modification tool (method) allowing the modification of at least one parameter of the selected node; modifying said parameter of said node based on a given input ('785; fig. 4a; step S4-6) for the benefit of allowing the user modify node parameters from an easy to use graphical user interface. It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Vu and Baumberg to provide a tree node navigation and selection method and a method to allow modification of parameters associated with the selected node for the benefit of decoupling the user from the intricacies of a shader/texture engine architecture with an easy to use graphical user interface.
- 10. In regards to claim 48, Baumberg further teaches wherein the modified parameters are recursively affected to the children nodes of said selected node ('785; ¶ 0099).
- 11. In regards to claim 64, Vu teaches a software product readable by a computer and encoding instructions for executing a computer process for modifying a procedural map

(hierarchical tree) for use with a tree driven procedural map (hierarchical tree) comprising a plurality of levels each having at least one node associated to at least one parameter ('522; abstract), comprising the steps of: providing a node selection tool (method) ('522; col. 2, ln. 47-51) allowing the selection of at least one node of one level among the plurality of nodes of a map to be modified ('522; col. 2, ln. 47-51); select a given node according to a given input ('522; col. 2, ln. 47-51); but does not teach providing a parameter modification tool (method) allowing the modification of at least one parameter of the selected node; modify said parameter of said node based on a given input; and continues teaching the calculation of a modified map based on the modified parameters ('522; col. 4, ln. 23-48). Baumberg, working in the same field of endeavor, however, teaches providing a parameter modification tool (method) allowing the modification of at least one parameter of the selected node; modifying said parameter of said node based on a given input ('785; fig. 4a; step S4-6) for the benefit of allowing the user modify node parameters from an easy to use graphical user interface. It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Vu and Baumberg to provide a tree node navigation and selection method and a method to allow modification of parameters associated with the selected node for the benefit of decoupling the user from the intricacies of a shader/texture engine architecture with an easy to use graphical user interface.

12. Claims 34-43 and 49-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vu (U.S. Patent 6,396,522, hereafter '522), as applied to claims 33, 45-48 and 64 above, in view of Baumberg (U.S. Patent Application Publication 2003/0160785 A1, hereafter '785) as applied to claims 33, 45-48 and 64 above and in further view of Deguy et al. (A Flexible Noise Model for Designing Maps, already of record, hereafter '245).

13. In regards to claim 34, Vu and Baumberg teach the tool (method) of claim 33, but they do not teach the method adapted for the modification of a tree driven procedural map (hierarchical tree) based on the following equation:

$$\Sigma F(2^j x-k)\xi_{(j,k)}$$

$$(j,k)\epsilon T$$

wherein:

F is a function  $R^n \to R$ 

x is a vector of the type  $(x_1, x_2, \ldots, x_n)$ ;

T is a tree comprising nodes (j, k) and wherein

j indicates the current level, among a total potential number of levels jmax (jɛ(0, 1, 2, ..., jmax) k is a displacement vector for each node N and of the type  $(x_1, x_2, ..., x_n)$ . Deguy, however, teaches the method adapted for the modification of a tree driven procedural map (hierarchical tree) based on the following equation:

$$\Sigma F(2^j x-k)\xi_{(j,k)}$$

$$(j,k) \varepsilon T$$

wherein:

F is a function  $R^n \to R$ 

x is a vector of the type  $(x_1, x_2, \ldots, x_n)$ ;

T is a tree comprising nodes (j, k) and wherein

j indicates the current level, among a total potential number of levels jmax (j $\epsilon$ (0, 1, 2, . . . , jmax) k is a displacement vector for each node N and of the type (x<sub>1</sub>, x<sub>2</sub>, . . . , x<sub>n</sub>) ('245; equation 4, page 300, where H is constant in u and the first summation multiplied by  $\phi_u$  is equal to F, see

('245; page 300, second column; page 303, first column).

Art Unit: 2628

two the paragraphs proceeding and following equation 4) for the benefit of incorporating multi-scale fractional Brownian motions allowing a more realistic texture mapping of surfaces. It would have been obvious to one of ordinary skill at the time of the invention to include the teachings of Deguy to include the equation above for the benefit of incorporating multi-scale fractional Brownian motion allowing a more realistic texture mapping of surfaces.

Regarding claim 35, Deguy further teaches being adapted for the modification of at least one parameter selected in the list comprising: the morphlet F, the maximum number of levels (jmax)

- 14. In regards to claim 36, Vu further teaches wherein said node selection tool (method) is provided with a deepness selection unit allowing the selection of a given level (j) of said tree ('522; col. 2, ln. 36-41).
- 15. Regarding claim 37, Vu further teaches said node selection tool (method) comprising a movable screen target, for the localization and/or selection of a node-object ('522; col. 2, ln. 63-67).
- 16. In regards to claim 38, Vu further teaches wherein said movable screen target is operable with a computer cursor displacement device ('522; col. 2, ln. 60-67).
- 17. Regarding claim 39, Vu and Deguy teache the tool (method) of claim 33 but they do not teach the tool (method) adapted for the modification of a tree driven procedural map (hierarchical tree) based on the following equation:

$$\Sigma \ 2^{-jH} F (2^j x-k) \xi_{(j,k)}$$

$$(j,k) \epsilon T_{D,p}$$

wherein:

Art Unit: 2628

F is a function  $R^n \to R$ 

x is a vector of the type  $(x_1, x_2, \ldots, x_n)$ ;

 $T_{D,p}$  represents a tree provided with an intermittency parameter (p), and comprising nodes (j, k)

Page 10

and a displacement valued (D), wherein

j indicates the current level, among a total potential number of levels jmax (j $\epsilon$ (0, 1, 2, . . . , jmax)

k is a displacement vector for each node N and of the type  $(x_1, x_2, \dots, x_n)$ 

H represents a Hurst parameter;

ξ represents a random number ('245; equation 6, page 302). Deguy, however, teaches wherein the tree driven procedural map (hierarchical tree) is based on the following equation:

$$\Sigma \ 2^{-jH} \ F (2^j \ x-k) \xi_{(i,k)}$$

$$(j,k) \epsilon T_{D,p}$$

wherein:

F is a function  $R^n \to R$ 

x is a vector of the type  $(x_1, x_2, \ldots, x_n)$ ;

 $T_{D,p}$  represents a tree provided with an intermittency parameter (p), and comprising nodes (j, k) and a displacement valued (D), wherein

j indicates the current level, among a total potential number of levels jmax (j $\epsilon$ (0, 1, 2, ..., jmax) k is a displacement vector for each node N and of the type ( $x_1, x_2, ..., x_n$ )

H represents a Hurst parameter;

 $\xi$  represents a random number ('245; equation 6, page 302) for the benefit of allowing a more realistic texture mapping of surfaces while saving processing time. It would have been obvious to one of ordinary skill at the time of the invention to include the teachings of Deguy using the

equation above for the benefit of allowing a more realistic texture mapping of surfaces while saving processing time.

- 18. In regards to claim 40, Deguy further teaches the method being adapted for the modification of at least one parameter selected in the list comprising: the function F, the current level (j), the maximum number of levels (jmax), a Hurst parameter (H), a random value ( $\xi$ ), an intermittency parameter (p), a displacement value (D) ('245; pages 300 & 302).
- 19. Regarding claim 41. The tool (method) of claim 39, wherein said node selection tool (method) is provided with a deepness selection unit allowing the selection of a given level (j) of said tree.
- 20. In regards to claim 42, Vu further teaches said node selection tool (method) comprising a movable screen target, for the localization and/or selection of a node-object ('522; col. 2, ln. 63-67).
- 21. Regarding claim 43, Vu further teaches wherein said movable screen target is operable with a computer cursor displacement device ('522; col. 2, ln. 60-67).
- 22. In regards to claim 44, Baumberg further teaches said map modification tool (method) being comprised in a tree driven procedural map (hierarchical tree) generation tool (method) (\*785; ¶ 0048).
- 23. Regarding claim 49, Vu and Baumberg teach the process of claim 47, but do not teach wherein the tree driven procedural map (hierarchical tree) is based on the following equation:  $\Sigma \ F(2^j x-k)\xi_{(i,k)}$

 $(j,k)\epsilon T$ 

wherein:

Art Unit: 2628

F is a function  $R^n \to R$ 

x is a vector of the type  $(x_1, x_2, \ldots, x_n)$ ;

T is a tree comprising nodes (j, k) and wherein

j indicates the current level, among a total potential number of levels jmax (jɛ(0, 1, 2, ..., jmax) k is a displacement vector for each node N and of the type  $(x_1, x_2, ..., x_n)$  ('245; equation 4, page 300, where H is constant in u and the first summation multiplied by  $\phi_u$  is equal to F, see two the paragraphs proceeding and following equation 4). Deguy, however, teaches the process adapted for the modification of a tree driven procedural map (hierarchical tree) based on the following equation:

Page 12

 $\Sigma F(2^j x-k)\xi_{(j,k)}$ 

 $(j,k)\epsilon T$ 

wherein:

F is a function  $R^n \to R$ 

x is a vector of the type  $(x_1, x_2, \ldots, x_n)$ ;

T is a tree comprising nodes (j, k) and wherein

j indicates the current level, among a total potential number of levels jmax (j $\epsilon$ (0, 1, 2, ..., jmax) k is a displacement vector for each node N and of the type ( $x_1, x_2, ..., x_n$ ) ('245; equation 4, page 300, where H is constant in u and the first summation multiplied by  $\phi_u$  is equal to F, see two the paragraphs proceeding and following equation 4) for the benefit of incorporating multiscale fractional Brownian motions allowing a more realistic texture mapping of surfaces. It would have been obvious to one of ordinary skill at the time of the invention to include the

teachings of Deguy to include the equation above for the benefit of incorporating multi-scale fractional Brownian motion allowing a more realistic texture mapping of surfaces.

- 24. In regards to claim 50, Deguy further teaches wherein the modifiable parameters are selected in the list comprising: the morphlet F, the maximum number of levels (jmax) ('245; page 300, second column; page 303, first column).
- 25. Regarding claim 51, Baumberg further teaches wherein said procedural map (hierarchical tree) is a texture map ('785; ¶ 0036).
- 26. In regards to claim 52, Baumberg teaches wherein said procedural map (hierarchical tree) is a plurality of texture types ('785; ¶ 0034 & 0036) but does not teach is selected from the list comprising: displacement, bump, reflectivity, specularity, ambient color, diffuse color, specular color, transparency, color, shininess, self-emission, anisotropy, refractive index. It would have been obvious to one of ordinary skill at the time of the invention to make appropriate design choices to selecting an appropriate set of the of texture types for use with the Baumberg teachings since it can accommodate a plurality of maps which may be tailored for inclusion into any one design.
- 27. Regarding claim 53 Deguy further teaches wherein the tree comprises an intermittency parameter (p) ('245; ('245; page 301, column 2).
- 28. In regards to claim 54, Deguy further teaches the process further comprising a Hurst parameter (H) ('245; page 300, column 1).
- 29. Regarding claim 55, Deguy further teaches the process further comprising a random value ( $\xi$ ) ('245; page 300, column 1).

30. In regards to claim 56, Deguy further teaches wherein the sum is a generalized sum ('245; page 304).

Regarding claim 57, Baumberg further teaches the process wherein the map is time dependant ('785; ¶ 0006; ¶ 0059).

In regards to claim 58, Vu and Baumbert teach the process of claim 47, but they do not teach wherein the tree driven procedural map (hierarchical tree) is based on the following equation:

$$\Sigma \ 2^{-jH} \ F \ (2^j \ x-k) \xi_{(j,k)}$$

$$(j,k) \varepsilon T_{D,p}$$

wherein:

F is a function  $R^n \to R$ 

x is a vector of the type  $(x_1, x_2, \ldots, x_n)$ ;

 $T_{D,p}$  represents a tree provided with an intermittency parameter (p), and comprising nodes (j, k) and a displacement valued (D), wherein

j indicates the current level, among a total potential number of levels jmax (j $\epsilon$ (0, 1, 2, ..., jmax) k is a displacement vector for each node N and of the type ( $x_1, x_2, ..., x_n$ )

H represents a Hurst parameter;

 $\xi$  represents a random number ('245; equation 6, page 302). Deguy, however, teaches wherein the tree driven procedural map (hierarchical tree) is based on the following equation:

$$\Sigma \ 2^{-jH} \ F \ (2^j \ x-k) \xi_{(j,k)}$$

$$(j,k) \varepsilon T_{D,p}$$

wherein:

Application/Control Number: 10/597,087 Page 15

Art Unit: 2628

F is a function  $R^n \to R$ 

x is a vector of the type  $(x_1, x_2, \ldots, x_n)$ ;

 $T_{D,p}$  represents a tree provided with an intermittency parameter (p), and comprising nodes (j, k) and a displacement valued (D), wherein

j indicates the current level, among a total potential number of levels jmax (j $\epsilon$ (0, 1, 2, ..., jmax) k is a displacement vector for each node N and of the type ( $x_1, x_2, ..., x_n$ )

H represents a Hurst parameter;

 $\xi$  represents a random number ('245; equation 6, page 302) for the benefit of allowing a more realistic texture mapping of surfaces while saving processing time. It would have been obvious to one of ordinary skill at the time of the invention to include the teachings of Deguy using the equation above for the benefit of allowing a more realistic texture mapping of surfaces while saving processing time.

- 31. Regarding claim 59, Deguy further teaches wherein the modifiable parameters are selected in the list comprising: the morphlet F, the maximum number of levels (jmax), a Hurst parameter (H), a random number (.xi.), an intermittency parameter (p), a displacement value (D) (\*245; pages 300 & 302).
- 32. In regards to claim 60, Baumberg further teaches wherein said procedural map (hierarchical tree) is a texture map ('785; ¶ 0036).
- 33. Regarding claim 61, Baumberg further teaches, wherein said procedural map (hierarchical tree) comprises a plurality of texture types ('785; ¶ 0034 & 0036) but does not teach that it is selected from the list comprising: displacement, bump, reflectivity, specularity, ambient color, diffuse color, specular color, transparency, color, shininess, self-emission, anisotropy,

refractive index. It would have been obvious to one of ordinary skill at the time of the invention to make appropriate design choices in selecting an appropriate set of the of texture types for use with the Baumberg teachings since it can accommodate a plurality of maps which and tailor the selection for inclusion into any one design.

- 34. In regards to claim 62, Deguy further teaches wherein said sum is a generalized sum ('245; page 304).
- 35. Regarding claim 63, Baumberg further teaches wherein the map is time dependant ('785; ¶ 0006; ¶ 0059).

#### Conclusion

The following prior art, made of record, was not relied upon but is considered pertinent to applicant's disclosure:

US 6714936 B1	Method and apparatus for displaying data stored in linked nodes
US 6518979 B1	Automatically-maintained customizable user interfaces
US 6509898 B2	Usage based methods of traversing and displaying generalized graph structures – Detailed node traversing, selection and data display through a GUI
US 20020178185 A1	Database model, tools and methods for organizing information across external information objects
US 5680475 A	System for processing textured images, texture analyser and texture synthesizer

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Martello whose telephone number is (571) 270-1883. The examiner can normally be reached on M-F 7:30-5:00 EST.

Art Unit: 2628

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on (571) 272-7761. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Application Information Retrieval (PAIR) system. Status information for published applications

Information regarding the status of an application may be obtained from the Patent

Page 17

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/EM/

Examiner, Art Unit 2628

/XIAO M. WU/

Supervisory Patent Examiner, Art Unit 2628